Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Canceled)

2. (Previously presented) A communication device including a power amplifier for amplifying a modulated high frequency carrier input signal comprising a resonance circuit and an excitation circuit for a signal excitation in the resonance circuit phase and/or frequency coupled with the modulated high frequency carrier signal, characterized by said excitation occurring within excitation periods (Tex) in a periodic alternation with resonation periods (Tfre), during which the resonance circuit is in a free running resonance mode, the excitation periods being smaller than the resonation periods to define an excitation duty cycle (Tex/Tcar) relative to the period of the carrier signal (Tcar) of less than 0.5, and the resonance circuit having a resonance frequency (fres) higher than the carrier frequency (fcar) of the modulated high frequency carrier signal over a resonance frequency detuning rate (dfres), defined by the frequency deviation of said resonance frequency from said carrier frequency relative to the carrier frequency (fres/fcar-1), substantially at most corresponding to half the excitation duty cycle.

3. (Previously presented) A communication device according to claim 2, characterized by said resonance frequency detuning rate (dfres) being in the order of magnitude of the half square value of said excitation duty cycle (Tex/Tcar) for an excitation duty cycle above an order of magnitude of 0.1.

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4. (Previously presented) A communication device according to claim 2, characterized by the excitation duty cycle (Tex/Tcar) being defined to decrease with increasing quality factor (Q) of the resonance circuit and vice versa for an excitation duty cycle (Tex/Tcar) above an order of magnitude of 0.1.

5. (Previously presented) A communication device including a power amplifier for amplifying a modulated high frequency carrier input signal comprising a resonance circuit and an excitation circuit for a signal excitation in the resonance circuit phase and/or frequency coupled with the modulated high frequency carrier signal, characterized by said excitation occurring within excitation periods (Tex) in a periodic alternation with resonation periods (Tfrc), during which the resonance circuit is in a free running resonance mode, the excitation periods being smaller than the resonation periods to define an excitation duty cycle (Tex/Tcar) relative to the period of the carrier signal (Tcar) of less than 0.5, characterized by an excitation duty cycle (Tex/Tcar) and a resonance frequency detuning rate (dfres=fres/fcar−1) being substantially defined by:

$$\left(\frac{Tex}{Tcar}\right)[Q]=\frac{\sqrt{1-\left(1-\frac{1}{Q}\right)^{4}}}{2\pi\left(1-\frac{1}{Q}\right)^{2}-\left(\frac{\sqrt{1-\left(1-\frac{1}{Q}\right)^{4}}}{2\pi\left(1-\frac{1}{Q}\right)^{2}}+\frac{3+2\arcsin\left(1-\frac{1}{Q}\right)^{2}/\pi}{4}\right)}.$$

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6. (Previously presented) A communication device including a power amplifier for amplifying a modulated high frequency carrier input signal comprising a resonance circuit and an excitation circuit for a signal excitation in the resonance circuit phase and/or frequency coupled with the modulated high frequency carrier signal, characterized by said excitation occurring within excitation periods (Tex) in a periodic alternation with resonation periods (Tfre), during which the resonance circuit is in a free running resonance mode, the excitation periods being smaller than the resonation periods to define an excitation duty cycle (Tex/Tcar) relative to the period of the carrier signal (Tcar) of less than 0.5, characterised by a resonance frequency detuning rate (dfres=fres/fcar-1) being substantially defined by:

$$dfres[Q] = 0.5\left(\frac{\sqrt{1-\left(1-\frac{1}{Q}\right)^4}}{2\pi\left(1-\frac{1}{Q}\right)^2} + \frac{3+2\arcsin\left(1-\frac{1}{Q}\right)^2/\pi}{4} - 1\right)$$

7. (Previously presented) A communication device according to claim 2, characterized by a discontinuity in the slope of the signal occurring in the resonance circuit during the resonation periods at the start of the excitation periods.

8. (Original) A communication device according to claim 7, characterized by a DC level shift causing said discontinuity to occur.

9. (Previously presented) A communication device according to claim 2, characterized in that the excitation circuit comprises a controllable switching device serially arranged with the resonance circuit between first and second terminals of a voltage supply source and having a control terminal coupled to the input of the power amplifier for periodically supplying an excitation voltage signal to the resonance circuit, phase and/or frequency coupled with the modulated carrier signal circuit.

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10. (Original) A communication device according to claim 9, characterized in that the controllable switching device comprises a switch resistance serially arranged with the resonance circuit between the first and second terminals of said voltage supply source and being varied from a maximum resistance value to a minimum resistance value and vice versa to smoothen transients of said excitation voltage signal increasing above a threshold voltage within the excitation periods.

11. (Original) A communication device according to claim 10, characterized in that the controllable switching device comprises a MOS transistor having its drain source path serially coupled to the resonance circuit being controlled to vary the switch resistance stepwise.

12. (Previously presented) A communication device according to claim 9, characterized by amplitude modulation means for modulating the amplitude of the supply voltage between the first and second terminals of the voltage supply source with modulation signal dependent envelope amplitude variations of the modulated high frequency carrier signal.

13. (Previously presented) A communication device including a power amplifier for amplifying a modulated high frequency carrier input signal comprising a resonance circuit and an excitation circuit for a signal excitation in the resonance circuit phase and/or frequency coupled with the modulated high frequency carrier signal, characterized by said excitation occurring within excitation periods (Tex) in a periodic alternation with resonation periods (Tfre), during which the resonance circuit is in a free running resonance mode, the excitation periods being smaller than the resonation periods to define an excitation duty cycle (Tex/Tcar) relative to the period of the carrier signal (Tcar) of less than 0.5, characterized in that the excitation circuit comprises a charge pump supplying an excitation current signal, phase and/or frequency coupled with the modulated carrier signal having smooth transients between a minimum and a maximum current level and increasing above a threshold current level within the excitation periods.

14. (Original) A communication device according to claim 13, characterized in that an output stage of the charge pump comprises a bipolar transistor, the collector emitter path thereof being serially coupled to the resonance circuit between first and second terminals of a supply voltage source.

15. (Previously presented) A communication device according to claim 13, characterized by amplitude modulation means for modulating the excitation signal as well as a supply voltage coupled to the resonance circuit with modulation signal dependent envelope amplitude variations of the modulated high frequency carrier signal.

16. (Previously presented) A communication device according to claim 2, further including a pulse generator controlling the excitation circuit to modulate the excitation signal in its phase and/or frequency and/or envelope amplitude in correspondence with the modulated high frequency carrier signal.

17. (Previously presented) A communication device according to claim 2, characterized by the resonance circuit having a resonance filter quality factor greater than 1.

18. (Previously presented) A communication device according to claim 2, characterized by a balanced implementation of the excitation circuit and the resonance circuit.

19. (Previously presented) A communication device according to claim 2, characterized in that the resonance circuit comprises a parallel RLC network, an inductor and resistor thereof being part of an antenna device.

20. (Previously presented) A communication device according to claim 2, characterized in that the resonance circuit comprises a parallel RLC circuit comprising an inductor provided with a tapped coupling to the antenna impedance.

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21. (Original) A communication device according to claim 20, characterized in that the inductor is provided with a further tap, coupled to the excitation circuit.

22. (Previously presented) A communication device according to claim 2 further including an antenna device having narrow bandwidth.

23. (Previously presented) High frequency power amplifier for use in a communication device according to claim 2, characterized by a resonance circuit part provided with antenna coupling means for completing the resonance circuit part to form said resonance circuit by coupling antenna means thereto.

24. (Previously presented) A communication device according to claim 3, characterized by the excitation duty cycle (Tex/Tcar) being defined to decrease with increasing quality factor (Q) of the resonance circuit and vice versa for an excitation duty cycle (Tex/Tcar) above an order of magnitude of 0.1.

25. (Previously presented) A communication device according to claim 4, characterized by a discontinuity in the slope of the signal occurring in the resonance circuit during the resonation periods at the start of the excitation periods.

26. (Previously presented) A communication device according to claim 24, characterized by a discontinuity in the slope of the signal occurring in the resonance circuit during the resonation periods at the start of the excitation periods.

27. (Previously presented) A communication device according to claim 7, characterized in that the excitation circuit comprises a controllable switching device serially arranged with the resonance circuit between first and second terminals of a voltage supply source and having a control terminal coupled to the input of the power amplifier for periodically supplying an excitation voltage signal to the resonance circuit, phase and/or frequency coupled with the modulated carrier signal circuit.

28. (Previously presented) A communication device according to claim 27, characterized in that the controllable switching device comprises a switch resistance serially arranged with the resonance circuit between the first and second terminals of said voltage supply source and being varied from a maximum resistance value to a minimum resistance value and vice versa to smoothen transients of said excitation voltage signal increasing above a threshold voltage within the excitation periods.

29. (Previously presented) A communication device according to claim 27, characterized in that the controllable switching device comprises a MOS transistor having its drain source path serially coupled to the resonance circuit being controlled to vary the switch resistance stepwise.

30. (Previously presented) A communication device according to claim 27, characterized by amplitude modulation means for modulating the amplitude of the supply voltage between the first and second terminals of the voltage supply source with modulation signal dependent envelope amplitude variations of the modulated high frequency carrier signal.

31. (Previously presented) A communication device according to claim 13, characterized by the excitation duty cycle (Tex/Tcar) being defined to decrease with increasing quality factor (Q) of the resonance circuit and vice versa for an excitation duty cycle (Tex/Tcar) above an order of magnitude of 0.1.

32. (Previously presented) A communication device according to claim 13, characterized by a discontinuity in the slope of the signal occurring in the resonance circuit during the resonation periods at the start of the excitation periods.

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33. (Previously presented) A communication device according to claim 32, characterized by a discontinuity in the slope of the signal occurring in the resonance circuit during the resonation periods at the start of the excitation periods.

34. (Previously presented) A communication device according to claim 33, characterized by a DC level shift causing said discontinuity to occur.

35. (Previously presented) A communication device according to claim 13, characterized in that the excitation circuit comprises a controllable switching device serially arranged with the resonance circuit between first and second terminals of a voltage supply source and having a control terminal coupled to the input of the power amplifier for periodically supplying an excitation voltage signal to the resonance circuit, phase and/or frequency coupled with the modulated carrier signal circuit.

36. (Previously presented) A communication device according to claim 35, characterized in that the controllable switching device comprises a switch resistance serially arranged with the resonance circuit between the first and second terminals of said voltage supply source and being varied from a maximum resistance value to a minimum resistance value and vice versa to smoothen transients of said excitation voltage signal increasing above a threshold voltage within the excitation periods.

37. (Previously presented) A communication device according to claim 36, characterized in that the controllable switching device comprises a MOS transistor having its drain source path serially coupled to the resonance circuit being controlled to vary the switch resistance stepwise.

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38. (Previously presented) A communication device according to claim 35, characterized by amplitude modulation means for modulating the amplitude of the supply voltage between the first and second terminals of the voltage supply source with modulation signal dependent envelope amplitude variations of the modulated high frequency carrier signal.

39. (Previously presented) A communication device according to claim 13, characterized by a balanced implementation of the excitation circuit and the resonance circuit.

40. (Previously presented) A communication device according to claim 13, characterized in that the resonance circuit comprises a parallel RLC network, an inductor and resistor thereof being part of an antenna device.

41. (Previously presented) A communication device according to claim 13, characterized in that the resonance circuit comprises a parallel RLC circuit comprising an inductor provided with a tapped coupling to the antenna impedance.

42. (Previously presented) A communication device according to claim 41, characterized in that the inductor is provided with a further tap, coupled to the excitation circuit.

43. (Previously presented) A communication device according to claim 13, further including an antenna device having narrow bandwidth.

44. (Previously presented) High frequency power amplifier for use in a communication device according to claim 13, characterized by a resonance circuit part provided with antenna coupling means for completing the resonance circuit part to form said resonance circuit by coupling antenna means thereto.

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